Russian Physics Journal 2017, pages 1-12

Cosmological Evolution of the Boltzmann Plasma with Phantom Scalar Interparticle Interaction. II. Multicomponent System Without Charge Symmetry

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Abstract

© 2017 Springer Science+Business Media New YorkBased on the macroscopic theory of statistical systems with scalar interparticle interaction developed by one of the authors, numerical models of cosmological evolution of the multicomponent Boltzmann plasma with scalar charged particles without symmetry between particles and antiparticles are constructed and analyzed. The basic features of cosmological models in this class are elucidated, in particular, the possibility of sufficiently fast transitions to different modes of cosmological expansion is demonstrated.

http://dx.doi.org/10.1007/s11182-017-1039-1

Keywords

Boltzmann plasma, cosmology, relativistic statistics, scalar interaction